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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,588	08/07/2001	Thomas E. Tahan	5181-75900	2724

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EXAMINER

SCHUBERT, KEVIN R

ART UNIT	PAPER NUMBER
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2137

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/923,588		TAHAN, THOMAS E.	
	Examiner		Art Unit	
	Kevin Schubert		2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12/27/05.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6, 8, 10-21, 23, 25, 27-38, 40, 42 and 44-51 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, 8, 10-21, 23, 25, 27-38, 40, 42, 44-51 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claims 1-4,6,8-21,23,25-38,40, and 42-51 have been considered.

Continued Examination Under 37 CFR 1.114

5 A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/21/05 has been entered.

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Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

15 (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international
20 application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

25 Claims 1-2,6,8,10,12,15-16,18-19,23,25,27,29,32-33,35-36,40,42,44,46, and 49-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Bots, U.S. Patent Application No. 6,226,748.

As per claims 1,18, and 35, the applicant discloses a method of controlling information
30 flow through a firewall comprising the following limitations which are met by Bots:

a) determining a first incoming packet community set (PCS) of a first data packet received on an interface of said firewall (Col 7, lines 1-6);

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b) discarding said first data packet in response to detecting said PCS is not a subset of an interface community set (IFCS) of said interface (Col 8, lines 2-4);

processing said first data packet in response to detecting said first incoming PCS is a subset of said IFCS, wherein said processing comprises:

5 c) matching said first data packet to a first rule of a plurality of rules of said firewall (Col 7, lines 1-19);

d) comparing said first incoming PCS to a second incoming PCS specified by the first rule (Col 7, lines 1-19);

10 e) changing the first incoming PCS in the first data packet to an outgoing PCS specified by the first rule, in response to determining the first incoming PCS matches the second incoming PCS (Col 7, lines 1-19).

f) comparing said outgoing PCS with a destination community set of said first data packet, prior to transmitting the first data packet to said destination community (Col 7, line 56 to Col 8, line 14; Fig 4);

15 g) discarding said first data packet in response to detecting said outgoing PCS is not a subset of said destination community set (Col 8, lines 2-4);

h) further processing said first data packet in response to detecting said outgoing PCS is a subset of said destination community set (Col 7, line 56 to Col 8, line 14).

20 As per claims 2,10,19,27,36, and 44, the applicant discloses the method of claims 1,9,18,26,35, and 43, which are met by Bots, with the following limitation which is also met by Bots:

Wherein said determining comprises determining a source network address community set (NACS) of said first data packet (Col 6, lines 34-38; Col 7, lines 1-6).

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As per claims 6,23, and 40, the applicant describes the method of claims 5,22, and 39, which are anticipated by Bots, with the following limitation which is also met by Bots:

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Wherein said processing further comprises discarding the first data packet, in response to determining the first incoming PCS does not match the second incoming PCS (Col 7, lines 14-16).

5 As per claims 8,25, and 42, the applicant describes the method of claims 6,23, and 40, which are met by Bots, with the following limitation which is also met by Bots:

Wherein changing said first incoming PCS to the outgoing PCS is in further response to determining that said first rule includes the action of forwarding said first data packet (Col 7, lines 1-19).

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As per claims 12,29, and 46, the applicant describes the method of claims 1,18, and 35, which are met by Bots, with the following limitations which are also met by Bots:

a) transmitting said first data packet via an output interface of said firewall in response to detecting said outgoing PCS is a subset of the interface community set (IFCS) of said output interface (Col 6, lines 34-46);

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b) discarding said first data packet in response to detecting said second PCS is not a subset of said IFCS (Col 8, lines 2-4);

As per claims 15,32, and 49, the applicant describes the method of claims 1,18, and 35, which is met by Bots, with the following limitation which is also met by Bots:

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Further comprising consulting a community information base (CIB) (Col 2, lines 62-65);

The community information base corresponds to lookup tables on the VPN units, which identify members of a group by their network addresses, provide services such as compression and encryption for authentication purposes, and include information corresponding to the VPN unit interfaces which allow the compression, encryption, and authentication rules of one VPN unit to be recognized by another.

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As per claims 16,33, and 50, the applicant describes the method of claims 15,32, and 49, which are met by Bots, with the following limitation which is also met by Bots:

Wherein said CIB includes community set information corresponding to network addresses, network services, and interfaces (Col 2, lines 62-65).

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Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

10 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated

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by the manner in which the invention was made.

Claims 3,11,20,28,37, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable by Bots in view of McNeill, U.S. Patent No. 6,167,052.

20

As per claims 3,11,20,28,37, and 45, the applicant discloses the method of claim 1,9,18,26,35, and 43, which are anticipated by Bots, with the following additional limitation which is met by McNeill.

Wherein said determining comprises determining a source network service community set (NSCS) of said first data packet (McNeill: Abstract);

25

The applicant describes the NSCS as identifying the source and destination by link layer addressing or a similar layering protocol (Applicant: Page 26). Bots discloses all the limitations of claims 1,9,18,26,35, and 43 and the use of identifying a source by its address, but fails to disclose the use of determining a source by link layer addressing or similar layering protocol.

McNeill discloses a system similar to Bots' and the applicant's in which connectivity is established

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in a network based on source and destination link layer addresses. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to incorporate the ideas of

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McNeill with those of Bots and determine a source and destination from link layering addressing as another means to determine the source and destination of a data packet.

Claims 4,13,21,30,38, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable
5 by Bots in view of Kidambi, U.S. Patent No. 6,424,626.

As per claims 4,13,21,30,38, and 47, the applicant discloses the method of claims
1,12,18,29,35, and 46, which are met by Bots, with the following limitation which is met by
Kidambi:

10 Wherein said incoming PCS is encoded in a header of said first data packet, and wherein
said determining comprises decoding said incoming PCS from said header of said first data
packet (Kidambi: Col 25, line 53 to Col 26, line 3 and Bots: Fig 6);

Bots discloses all the limitations of the claim except for the limitation that the source and
destination addresses are decoded from the header. Kidambi discloses the idea of encoding the
15 source and destination addresses in the header. It would have been obvious to one of ordinary
skill in the art at the time the invention was filed to encode the source and destination addresses
in the header of a data packet because doing so is a commonly accepted method of effectively
transmitting the source and destination addresses.

20 Claims 14,17,31,34,48, and 51 are rejected under 35 U.S.C. 103(a) as being
unpatentable by Bots in view of Kisor, U.S. Patent No. 6,266,773.

As per claims 14,17,31,34,48, and 51, the applicant describes the method of claims
13,12,30,29,47, and 46, which are met by Bots, with the following limitation which is met by Kisor:

25 Further comprising recording an event corresponding to said first data packet in response
to detecting said outgoing PCS is not a subset of said destination community set (Col 3, lines 42-
67);

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Bots discloses all the limitations of claims 13,12,30,29,47, and 46. However, Bots fails to disclose the use of recording an event in a security log. The use of a security log for recording an event is disclosed by Kisor in a computer security system. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to incorporate the ideas of Kisor with those of Bots and add a security log for recording an event for extra security and monitoring in the system.

Response to Arguments

Applicant's arguments, see Remarks, filed 11/21/05, with respect to the 112, first paragraph rejection of claims 1-4,6,8-21,23,25-38,40, and 42-51 have been fully considered and are persuasive. Applicant has noted that the term "PCS" should be taken as a more general term for both an "incoming PCS" and an "outgoing PCS". The 112, first paragraph, rejection has been withdrawn. The objection to the Specification, based on the rejection, has been withdrawn accordingly.

Applicant's arguments with respect to the 102(e) rejection of claims 1,2,5-10,12,15-16,18-19,22-27,29,32-33,35-36,39-44,46,49-50 under Bots have been fully considered but they are not persuasive. Applicant argues that Bots does not meet the bolded portion of the claimed limitation presented below:

"comparing said outgoing PCS with a destination community set of said first data packet, **prior to transmitting the first data packet to said destination community**". Applicant argues that the disclosure cited in the previous action (Bots, col 7, line 56 to Col 8, line 4) describes processing which takes place upon receipt of a packet at the destination. Examiner respectfully disagrees.

Bots discloses a method of controlling information flow. Referring to Fig 2, an end station (e.g. 211,212,213) may want to transfer a data packet to a destination (e.g. 201,202,203). VPN Units (252,250) control information flow. Specifically, a data packet from an end station (211,212,213) may pass through a first VPN Unit (e.g. 252) where it is processed (Col 7, lines 45-

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52). After the packet is processed it is forwarded toward the destination address over the Internet (Col 7, lines 52-55).

Before the packet is delivered to its destination, it may be processed again at a second VPN Unit (e.g. 250) (Col 7, line 56 to Col 8, line 14). At the second VPN Unit, the outgoing PCS of the packet is compared with a destination community set. Finally, the packet at the second VPN Unit will either be sent to the destination community (Col 8, lines 12-14) or discarded.

Thus, it is quite clear from the above that Bots meets the limitation "comparing said outgoing PCS with a destination community set of said first data packet, prior to transmitting the first data packet to the destination community". Accordingly, the rejection is maintained.

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Conclusion

This action is made non-final.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Schubert whose telephone number is (571) 272-4239. The examiner can normally be reached on M-F 7:30-6:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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